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Endress, Mary E ; Hansen, Bruce F

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# (2421–2422) Proposals to conserve the names *Forsteronia* and *Pinochia* (*Apocynaceae*), the former with a conserved type

**Mary E. Endress[1] & Bruce F. Hansen[2]**

1 *Institute of Systematic Botany, University of Zurich, Zollikerstrasse 107, 8008 Zurich, Switzerland*
2 *Institute for Systematic Botany, Department of Cell Biology, Microbiology, and Molecular Biology, University of South Florida, ISA 2015, 4202 East Fowler Avenue, Tampa, Florida 33620, U.S.A.*
Author for correspondence: *Mary E. Endress, mendress@systbot.uzh.ch*

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(2421) ***Forsteronia*** G. Mey., Prim. Fl. Esseq.: 133. Nov 1818 [*Apocyn.*], nom. cons. prop.
Typus: *F. spicata* (Jacq.) G. Mey. (*Echites spicatus* Jacq.), typ. cons. prop.

(2422) ***Pinochia*** M.E. Endress & B.F. Hansen in Edinburgh J. Bot. 64: 271. 2007 [*Apocyn.*], nom. cons. prop.
Typus: *P. corymbosa* (Jacq.) M.E. Endress & B.F. Hansen (*Echites corymbosus* Jacq.).

*Forsteronia* G. Mey. is a widespread Neotropical genus of 42 species, distributed from Mexico and the Antilles southward as far as northern Argentina (Morales in Darwiniana, n.s., 47: 140–184. 2009). When Meyer originally described *Forsteronia*, he validly published two species names, *Forsteronia corymbosa* and *F. spicata*, based on *Echites corymbosus* Jacq. and *E. spicatus* Jacq. (Enum. Syst. Pl.: 13. Aug–Sep 1760), but he did not designate a type for his new generic name. This was done by Cassini (in Bull. Sci. Soc. Philom. Paris 1820: 7. 1820), who designated *F. corymbosa* as the type. Unaware of the action by Cassini, one hundred and fifteen years later, Woodson (in Ann. Missouri Bot. Gard. 22: 154. 1935) made a superfluous typification of *Forsteronia*, choosing *F. spicata* as the type. All taxonomists working on *Forsteronia* thereafter have followed Woodson in their publications, citing *F. spicata* as the type of the generic name, including Hansen & Morales (in Darwiniana, n.s., 47: 228. 2009) who neotypified *F. spicata* by Jacquin's later published plate (Jacquin, Select. Stirp. Amer. Hist. 2: t. 29. 1763). The existence of the earlier typification of *Forsteronia* by Cassini was only recently brought to our attention by Jean-Sébastien Girard (pers. comm.). As Cassini's selection is no longer included in *Forsteronia*, the first of the two proposals here seeks to conserve the name *Forsteronia* with the conserved type, *F. spicata*. This proposal is intimately linked to the other.

In an unpublished revision of *Forsteronia*, Bruce Hansen (Monogr. Rev. Forsteronia. Ph.D. Thesis, Dept. of Biology, University of South Florida, 1985) recognized two subgenera: *Forsteronia* subg. *Forsteronia* in which 42 of the 46 recognized species were placed, and "*Forsteronia* subg. *Pinochia* B.F. Hansen" ined. for the remaining four species. The two subgenera were differentiated by the presence of glands at the base of the leaf blade, absence of axillary glands, anthers bluntly cordate to truncate at the base, and fusiform style-head in the former (the first three of which are also found in *Mandevilla* Lindl. and relatives in the tribe *Mesechiteae* Miers, which Hansen surmised was likely its closest relative), versus absence of glands at the base of the leaf blade, presence of axillary glands, anthers sagittate at the base, and ovate style-head in the latter. In a phylogenetic study of the tribe *Mesechiteae* based on DNA and morphology, *Forsteronia* was resolved as sister to *Mandevilla*, corroborating Hansen's prediction (Simões & al. in Amer. J. Bot. 91: 1409–1418. 2004). Three years later, in a broad-scale molecular phylogenetic study, including 59 of the 77 then recognized genera of the subfamily *Apocynoideae* Burnett (Livshultz & al. in Ann. Missouri Bot. Gard. 94: 324–359. 2007), *Forsteronia* was found to be paraphyletic, with species of Hansen's *Forsteronia* subg. *Forsteronia* coming out as expected in the tribe *Mesechiteae*, but the representative of "*Forsteronia* subg. *Pinochia*" being placed in the tribe *Odontadenieae* Miers. The taxonomic consequences were carried out the same year, with the recognition of *Pinochia* M.E. Endress & B.F. Hansen as a distinct genus and new combinations for the four included species (Endress & Hansen in Edinburgh J. Bot. 64: 271. 2007). Unfortunately, following Woodson's superfluous and erroneous typification for *Forsteronia*, and unaware that Cassini (l.c.) had designated *Forsteronia corymbosa* (≡ *Echites corymbosus* Jacq.) as the type of *Forsteronia*, we designated as type of *Pinochia P. corymbosa* (Jacq.) M.E. Endress & B.F. Hansen, with the same basionym. *Pinochia* is thus an illegitimate name, an issue which our second proposal seeks to address.

The proposals here are a means to maintain nomenclatural stability by keeping the widely used name *Forsteronia* in its traditional and current delimitation, not only in taxonomic and floristic works, but also extensively in ecological, entomological and ethnobotanical literature (e.g., Hansen in Berry & al., Fl. Venez. Guayana. 2: 492–501. 1995; Hopkins & Memmott in Ecol. Entomol. 28: 687–693. 2003; Morales in Darwiniana, n.s., 43: 90–191. 2005; Campanello & al. in Forest Ecol. Managem. 242: 250–259. 2007; Ezcurra & al. in Zuloaga & al., Cat. Pl. Vasc. Cono Sur 2: 1090–1143. 2008; Sanz-Biset & al. in J. Ethnopharmacol. 122: 333–362. 2009; Morales & Hansen in Davidse & al., Fl. Mesoamer. 4(1): 675–676. 2009). If the proposal on *Forsteronia* is declined, all species of *Forsteronia* as currently defined must be given another generic name, *Aptotheca* Miers (Apocyn. S. Amer.: 150. 1878) based on *A. corylifolia* (Griseb.) Miers (*Forsteronia corylifolia* (Griseb.) Griseb,), a name never used for any other species and hence requiring 41 new combinations, and at the same time, *Pinochia*, with four recognized species, would then become *Forsteronia*. If the retention of *Forsteronia* in its current sense is accepted by conservation of *F. spicata* as type, the segregate genus *Pinochia* will lack a legitimate name. Although established less than 10 years ago, it seems only sensible to make it legitimate by conservation, once the cause of its illegitimacy is removed through the conservation of *Forsteronia*.

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